DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

Oldcastle BuildingEnvelope™ 803 Airport Road Terrell, TX 75160

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "RW-5000 Ribbon" Aluminum Fixed Window - S.M.I.

APPROVAL DOCUMENT: Drawing No. **RW-5000SM**, titled "Product Approval Drawings - RW-5000 Ribbon Window System – Small Missile Impact", sheets 1 through 7 of 7, dated 09/17/12, prepared by manufacturer, signed and sealed by William D. Cook, P.E., bearing the Miami-Dade County Product Control Revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises and renews NOA# 12-0120.09 and consists of this page 1 and evidence pages E-1, E-2 and E-3, as well as approval document mentioned above.

The submitted documentation was reviewed by Manuel Perez, P.E.

|V| | |2|15|13

MIAMI-DADE COUNTY
APPROYED

NOA No. 12-1126.07
Expiration Date: February 27, 2018
Approval Date: February 28, 2013

Approval Date: February 28, 2013

Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

- 1. Manufacturer's die drawings and sections.
- 2. Drawing No **RW-5000SM**, Sheets 1 through 7 of 7, titled "Product Approval Drawings RW-5000 Ribbon Window System Small Missile Impact", dated 09/17/12, prepared by manufacturer, signed and sealed by William D. Cook, P.E.

B. TESTS

- 1. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
 - 2) Large Missile Impact Test per FBC, TAS 201-94
 - 3) Cyclic Wind Pressure Loading per FBC, TAS 203-94 along with marked-up drawings and installation diagram of an aluminum fixed window (specimen 4), prepared by Hurricane Test Laboratory, Inc., Test Report No. HTL-0105-0210-04, dated 2/9/04, signed and sealed by Vinu J. Abraham, P.E. (Submitted under previous NOA # 04-0601.01)
- 2. Test reports on: 1) Large Missile Impact Test per FBC, TAS 201-94
 2) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 along with marked-up drawings and installation diagram of an aluminum fixed window (specimen 1), prepared by Hurricane Test Laboratory, Inc., Test Report No.
 HTL-0105-0117-02, dated 1/23/02, signed and sealed by Vinu J. Abraham, P.E.
 (Submitted under previous NOA # 02-1202.01)
- 3. Test reports on: 1) Large Missile Impact Test per FBC, TAS 201-94
 2) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 along with marked-up drawings and installation diagram of an aluminum fixed window (specimen 1), prepared by Hurricane Test Laboratory, Inc., Test Report No.
 HTL-0105-0403-02, dated 4/1/02, signed and sealed by Vinu J. Abraham, P.E.
 (Submitted under previous NOA # 02-1202.01)
- 4. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
 - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
 - 3) Water Resistance Test, per FBC, TAS 202-94
 - 4) Large Missile Impact Test per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94 along with marked-up drawings and installation diagram of an aluminum fixed window (specimen 4), prepared by Hurricane Test Laboratory, Inc., Test Report No. HTL-0105-0403-02, dated 4/3/02, signed and sealed by Vinu J. Abraham, P.E. (Submitted under previous NOA # 02-1202.01)

Manuel Perez, P.E.

Product Control Examiner

NOA No. 12-1126.07

Expiration Date: February 27, 2018 Approval Date: February 28, 2013

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

B. TESTS (CONTINUED)

- 5. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202-94
 - 2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
 - 3) Water Resistance Test, per FBC, TAS 202-94
 - 4) Large Missile Impact Test per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of an aluminum fixed window (specimen 2), prepared by Hurricane Test Laboratory, Inc., Test Report No. HTL-0105-0403-02, dated 4/11/02, signed and sealed by Vinu J. Abraham, P.E. (Submitted under previous NOA # 02-1202.01)

- 6. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
 - 2) Small Missile Impact Test per FBC, TAS 201-94
 - 3) Cyclic Wind Pressure Loading per FBC, TAS 203-94 along with marked-up drawings and installation diagram of an aluminum fixed window (specimen 5), prepared by Hurricane Test Laboratory, Inc., Test Report No. **HTL-0105-0403-02**, dated 4/5/02, signed and sealed by Vinu J. Abraham, P.E.

(Submitted under previous NOA # 02-1202.01)

- 7. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
 - 2) Water Resistance Test, per FBC, TAS 202-94
 - 3) Large Missile Impact Test per FBC, TAS 201-94
 - 4) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of an aluminum fixed window (specimen 1), prepared by Hurricane Test Laboratory, Inc., Test Report No. **HTL-0105-0525-02**, dated 5/24/02, signed and sealed by Vinu J. Abraham, P.E. (Submitted under previous NOA # 02-1202.01)

C. CALCULATIONS:

- 1. Anchor verification calculations and structural analysis, complying with FBC-2010, dated 07/07/08, revised on 10/20/08, 01/11/09, 01/18/11 and updated on 01/09/12, prepared, signed and sealed by William D. Cook, P.E. (Submitted under previous NOA# 12-0120.09)
- **2.** Glazing complies with ASTM E1300-04.

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

Manuel Perez, P.E. Product Control Examiner NOA No. 12-1126.07

Expiration Date: February 27, 2018 Approval Date: February 28, 2013

Oldcastle BuildingEnvelopeTM

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. 11–1102.11 issued to Solutia, Inc. for their "Saflex Clear and Color Glass Interlayers" dated 06/14/12, expiring on 05/21/16.

F. STATEMENTS

- 1. Statement letter of conformance complying with FBC-2010, dated November 15, 2012, signed and sealed by William D. Cook, P.E.
- 2. Statement letter of no financial interest, dated November 15, 2012, signed and sealed by William D. Cook, P.E.

G. OTHER

1. Notice of Acceptance No. 12-0120.09, issued to Oldcastle BuildingEnvelope™ for their Series "RW-5000 Ribbon" Aluminum Fixed Window – S.M.I., approved on 03/22/12 and expiring on 02/27/13.

Manuel Perez, P.E.
Product Control Examiner

NOA No. 12-1126.07 Expiration Date: February 27, 2018

Approval Date: February 28, 2013

RW-5000 RIBBON WINDOW SYSTEM SMALL MISSILE IMPACT RESISTANT

INDEX TO DRAWINGS

SHEET 1: INDEX TO DRAWINGS AND NOTES

SHEET 2: TYPICAL ELEVATION

SHEET 3: BILL OF MATERIALS

SHEET 4: TYPICAL HORIZONTAL GLAZING DETAILS

SHEET 5: TYPICAL VERTICALGLAZING DETAILS

SHEET 6: MULL CAP INSTALLATION DETAILS

SHEET 7: EXTRUSION PROFILES

GENERAL NOTES

- 1) WINDOW RATED FOR SMALL MISSILE IMPACT.
- 2) SHUTTERS REQUIRED FOR WINDOWS INSTALLED UP TO 30' ABOVE GRADE
- 3) NO SHUTTERS REQUIRED FOR WINDOWS INSTALLED OVER 30' ABOVE GRADE
- 4) THIS WINDOW SYSTEM HAS BEEN TESTED, ENGINEERED AND APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN LOAD CHARTS. WINDOW SYSTEM IS IN COMPLIANCE WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 2010 EDITION INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ)
- 5) THE SYSTEM SHOWN HEREIN WAS TESTED IN CONFORMANCE WITH MIAMI-DADE COUNTY PROTOCOLS TAS-201, 202, 203.
- 6) ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.
- 7) BUCK, OPENINGS AND BUCK FASTENERS MUST BE DESIGNED & INSTALLED TO WITHSTAND LOADS FOR EACH APPLICATION. WOOD BUCKS SHALL BE DESIGNED BY SPECIALTY ENGINEER OR ENGINEER OF RECORD.
- 8) A 33% INCREASE IN ALLOWABLE STRESS NOT USED IN ANALYSIS.
- 9) ALL STEEL IN CONTACT WITH ALUMINUM TO BE PAINTED OR PLATED PER FBC 2003.2.4

BROMLEX COOK HINGINEERING, INC.

STRACTURAL ENGINEERING SERVICES

5440 MV. JAH AVENUE SUR 100

FOR LADDERDALE FLORIDA 33309

EL: (931) 772-4624 FAX: (931) 722-4634

WILLIAM D. GOOK P.E. SECB

FIA DA ARDIO E FIA SI 2008

FOR MIAMI-DADE CO. B.C.C.O.

PRODUCT REVISED as complying with the Florida Building Code Acceptance No 12-1126-07 Expiration Date Feb. 27, 200

By Maul Sels Miami Dade Product Control AWOO TATALWAM

REV BY DATE DESCRIPTI

Okdcastle

BuildingEnvelope*

RPORT RD. TERRELL TX 78

PRODUCT APPROVAL DRAWINGS RW-5000 RIBBON WINDOW SYSTEM SMALL MISSILE IMPACT

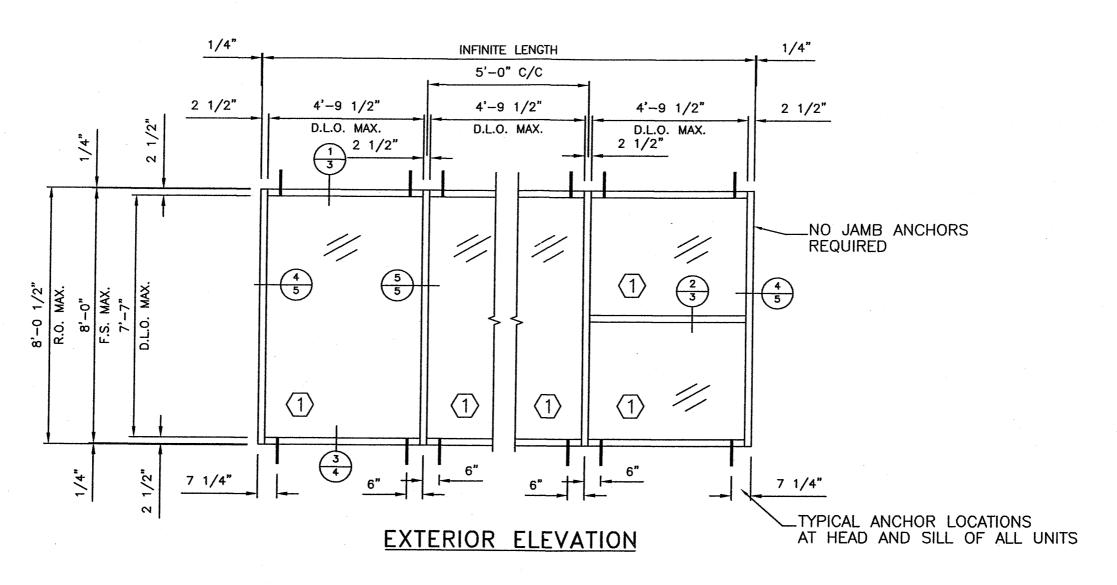
DRAWN DATE

GRG 9/17/12

NOTED DRAWING NO. RW-5000SM

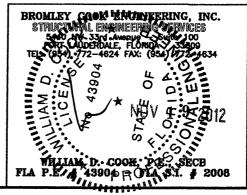
1 OF 7

OLDCASTLE BUILDING ENVELOPE SERIES RW-5000 RIBBON WINDOW SYSTEM WINDOW RATED FOR SMALL MISSILE IMPACT



| DESIGN PRESSURE | |
|-----------------------|----------|
| +70 psf (15psf WATER) | POSITIVE |
| -80 psf | NEGATIVE |

| | GLASS SCHEDULE (SMALL MISSILE IMPACT) | | | | |
|-----|---------------------------------------|---|-------------|--|--|
| | MANUFACTURER | DESCRIPTION | GASKETS | | |
| (1) | SOLUTIA | 1/4" H.S. GLASS AT INNER AND OUTER FACES, | FG-5126 INT | | |
| | SAFLEX PVB | .060 SAFLEX PVB; TOTAL = .496 | FG-5125 EXT | | |



FOR MIAMI-DADE CO. B.C.C.O.

PRODUCT REVISED
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Acceptance No 12-1126.00
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By Maule Sure

By Maulle Tols
Miami Dade Product Control

NOTED

DRAWING NO.

RW-5000SM

SHEET 2 OF 7

DRAWN DATE GRG 8/27/10 SCALE

75160 AND PATE DESCRIPTION

Oldcastle
BuildingEnvelope"
803 AIRPORT RD. TERRELL TX 75160
(972) 551-6100

PRODUCT APPROVAL DRAWINGS
RW-5000 RIBBON WINDOW SYSTEM
SMALL MISSILE IMPACT

RW-5000 RIBBON WINDOW SYSTEM BILL OF MATERIALS

| COMPONENT SCHEDULE | | | |
|--------------------|-----------------|--------------|-------------------------|
| PART NO | DESCRIPTION | MANUFACTURER | ALUMINUM ALLOY & TEMPER |
| RW-5131 | MULL | OBE | 6063-T6 |
| RW-5132 | MULL | OBE | 6063-T6 |
| RW-5133 | HEAD | OBE | 6063-T6 |
| RW-5134 | GLAZING BEAD | OBE | 6063-T6 |
| RW-5135 | HORIZONTAL TRIM | OBE | 6063-T5 |
| RW-5136 | JAMB | OBE | 6063-T6 |
| RW-5137 | HORIZONTAL | OBF | 6063-T6 |
| RW-5138 | SILL | OBE | 6063-T6 |
| RW-5139 | SETTING CHAIR | OBE | 6063-T5 |
| RW-5140 | SILL FILLER | OBE | 6063-T5 |
| RW-5141 | MULL CAP | OBE | 6063-T5 |
| RW-5142 | JAMB CAP | OBE | 6063-T5 |
| RW-5161 | END DAM | OBE | 6063-T5 |
| RW-5162 | MULL CLIP | OBE | 6063-T5 |

| GASKETS AND HARDWARE | | | |
|----------------------|---------------------------------|-----------------|-------------------------|
| PART NO | DESCRIPTION | MANUFACTURER | LOCATION |
| CW-998 | BULB GASKET | OBE | MULLIONS |
| FG-1133 | EPDM GASKET | OBE | VIRACON HRG2 EXTERIOR |
| FG-5125 | EPDM GASKET | OBE | TYPICAL EXTERIOR |
| FG-5126 | VINYL SPACER | OBE | TYPICAL INTERIOR |
| FG-5124 | EPDM SETTING BLOCK | OBE | SILL & HORIZONTAL |
| RW5000-FP-3 | VINYL WATER DIVERTER | OBE | HORIZONTALS |
| RW-5139 | ALUM. SETTING CHAIR X 4" LG. | OBE | SILL |
| FG-5128 | VINYL BAFFLE RETAINER | OBE | SILL |
| RW5000-PP-4 | BAFFLE | OBE | SILL |
| RW5000-FP-1 | MULL CAP (MADE FROM RW-5141) | OBE | HEAD & SILL OF MULLIONS |
| RW5000-FP-2 | JAMB CAP (MADE FROM RW-5142) | OBE | HEAD & SILL OF JAMBS |
| RW5000-FP-8 | END DAM (MADE FROM RW-5161) | OBE | HEAD & SILL OF MULLIONS |
| RW5000-FP-11 | MULLION CLIP(MADE FROM RW-5162) | OBE | MULLION |
| DOW 995 | STRUCTURAL SILICONE | DOW-CORNING | INTERIOR GLASS |
| SM-5601 | SEALANT TAPE | SCHNEE-MOREHEAD | FRAME JOINTS |
| SM-7100 | SEALANT | SCHNEE-MOREHEAD | PERIMETER SEAL |
| 931 | SEALANT | VULKEM | MULL JOINT |

| FASTENER SCHEDULE | | | |
|-------------------|-------------------|-------------------|--|
| PART NO. | DESCRIPTION | APPLICATION | |
| FS-327 | #12 X 7/8" HWHTCS | GLAZING BEADS | |
| FS-202 | #8 X 1/2" PPH | JAMB CAP | |
| FS-45 | #8 X 1/2" PFH | MULL CAP/END DAM | |
| FS-44 | 5/16" X 1" HHSTS | FRAME CONNECTIONS | |

SEE SHEET #4 FOR PERIMETER ANCHORS

NOTE:

STRUCTURAL ALUMINUM TO BE 6063-T6, TRIM TO BE 6063-T5

BROMLEY COOK MINISTRUCERING, INC.
STRUCTURAL ENGINEERING SERVICES
548 MWS371 Avenue Services
148 MWS37

FOR MIAMI-DADE CO. B.C.C.O.

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 12-W26-07
Expiration Date Feb. 27, 2018
By Wallell M. 2

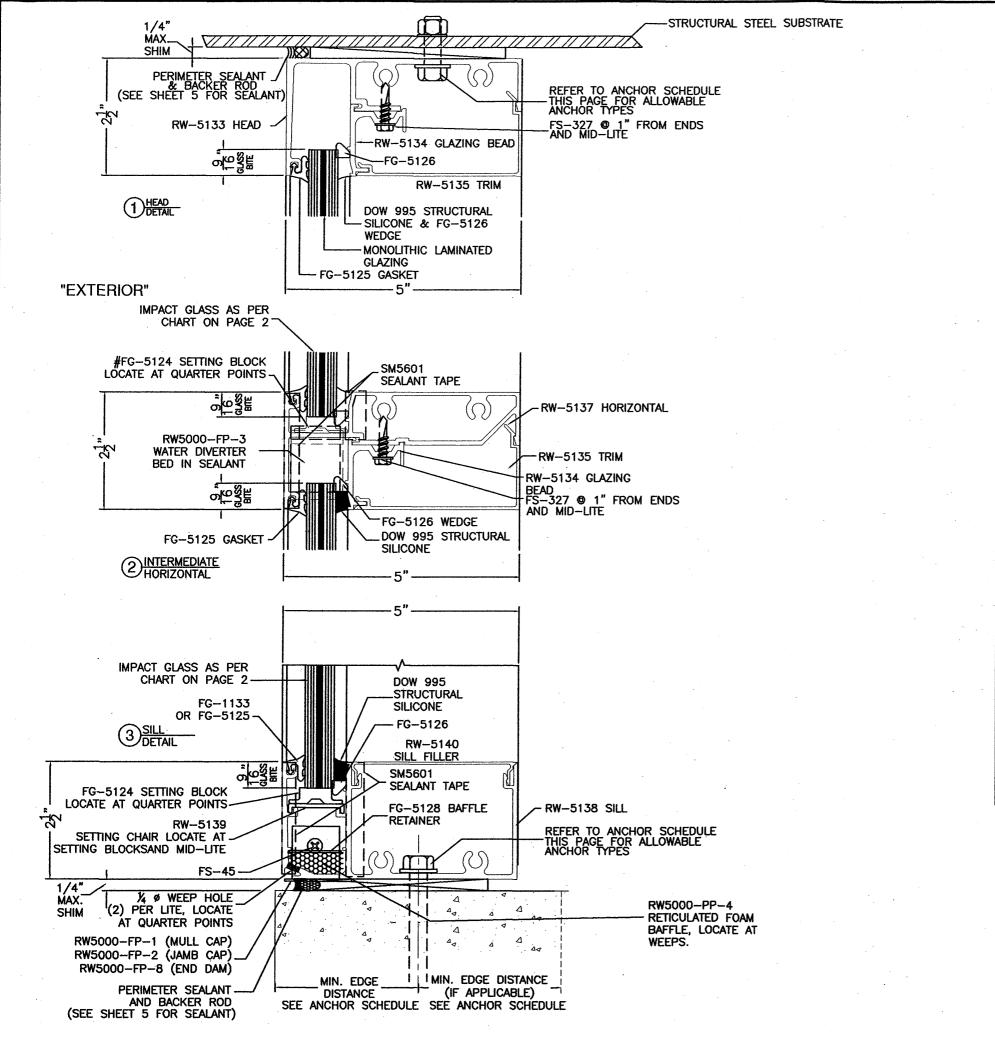
By Warmel Assa. Miami Pade Product Control MANUAL COMP

Oldcastle
BuildingEnvelope*
NRPORT RD. TERRELL TX 75

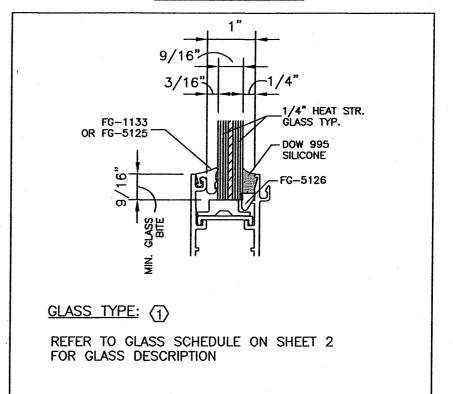
PRODUCT APPROVAL DRAWINGS
RW-5000 RIBBON WINDOW SYSTEM
SMALL MISSILE IMPACT

DRAWN DATE GRG 9/17/12
SCALE NOTED
DRAWING NO. RW-5000SM

SHEET 3 OF 7



GLAZING DETAIL



ANCHOR SCHEDULE

IN CONCRETE (2000 psi):

* 3/8" HILTI KWIKBOLT III WITH 2-1/2" MIN. EMBED

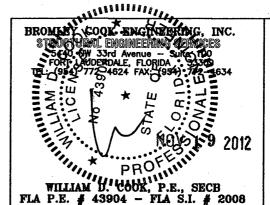
MIN EDGE DISTANCE = 3-1/2"
MIN ANCHOR SPACING = 4-1/2"

↑ 3/8"ø POWERS WEDGE BOLT W/ 3-1/2" MIN. EMBED
MIN EDGE DISTANCE = 3-1/2"

MIN ANCHOR SPACING = 3-1/2 MIN ANCHOR SPACING = 4-1/2"

IN STEEL (1/8" THICK)

♦ 3/8"-16 GRADE-5 HEX HEAD BOLT



FOR MIAMI-DADE CO. B.C.C.O.

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as complying with the Florida
Building Code
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Expiration Date Feb. 27,2018
By Maull Misami Dade Product Control

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NOTED
DRAWING NO.

RW-5000SM SHEET 4 OF 7

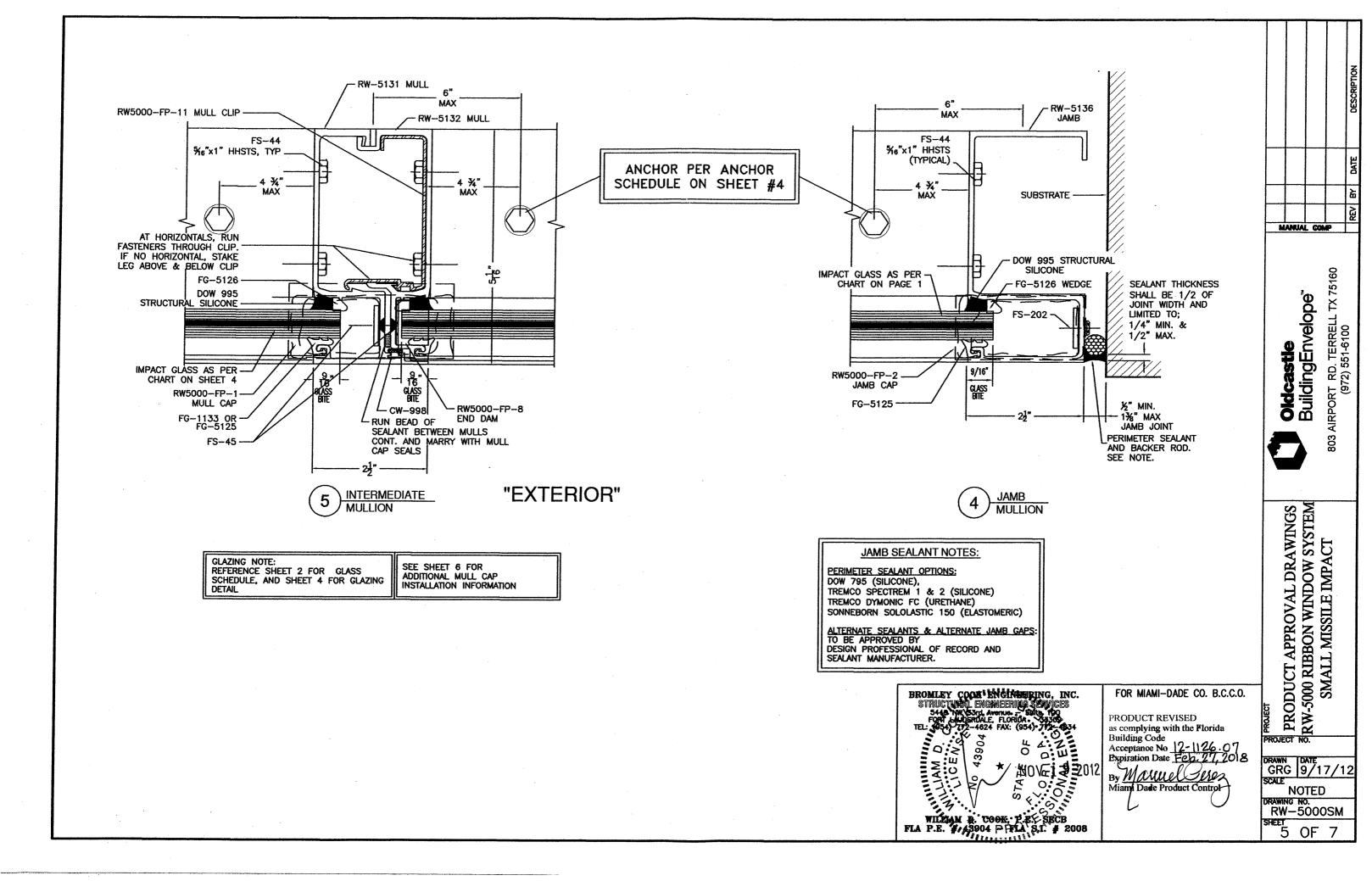
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Oldcastle
BuildingEnvelope"

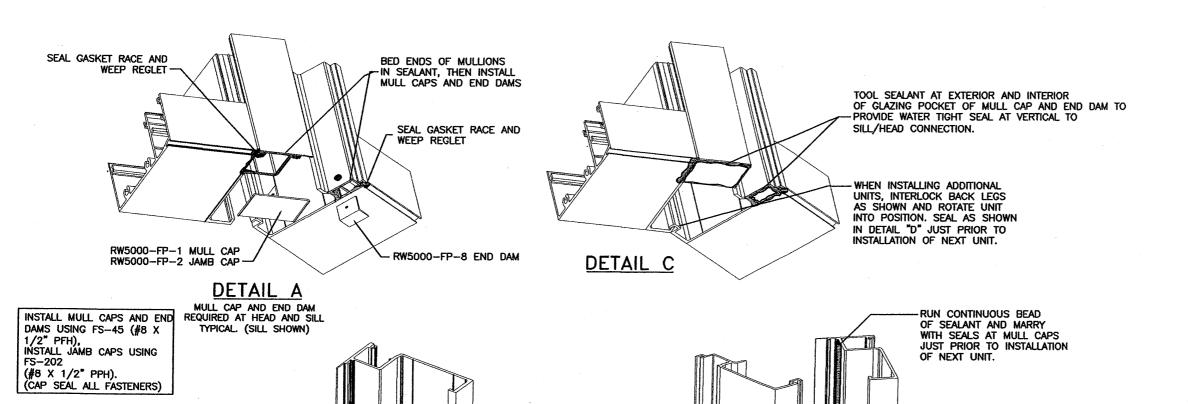
AIRPORT RD. TERRELL TX 75160
(972) 551-6100



PRODUCT APPROVAL DRAWINGS
RW-5000 RIBBON WINDOW SYSTEM
SMALL MISSILE IMPACT



RW-5000 MULL CAP SEALANT DETAILS AND INSTALLATION INSTRUCTIONS



OF SEALANT TO ALLOW FOR INSTALLATION OF NEXT UNIT.

INSTALLATION NOTES:

I) ASSEMBLE UNITS AS SHOWN ON DETAIL SHEETS 3 THRU 5. INSTALL SEALANT TAPE BETWEEN VERTICALS AND HORIZONTALS AS SHOWN.

TOOL THE SEALANT ALONG INTERIOR. OF THE MULL DURING INSTALLATION

WHEN INSTALLING THE RW5000-FP1

MULL CAP, KEEP THIS AREA CLEAR

OF THE MULL CAP.

2) INSTALL AND SEAL MULL CAPS AS SHOWN IN DETAILS A, B & C ABOVE.

3) MULL CAPS SHOULD FORM A WATER TIGHT SEAL, A TEST MAY BE CONDUCTED TO CONFIRM THIS SEAL BY BLOCKING WEEP HOLES AND FILLING SILL CAVITY WITH WATER. AFTER TEST REMOVE PLUGS FROM WEEP HOLES, DRAIN WATER. INSTALL BAFFLES AND BAFFLE RETAINERS.

4) INSTALL FIRST UNIT INTO OPENING

(UNITS WILL INSTALL FROM LEFT TO RIGHT AS VIEWED FROM EXTERIOR OF BUILDING), LEVEL, PLUMB AND ANCHOR FIRST UNIT. WHEN SHIMMING UNITS, SHIM AT ANCHOR POINTS UNDER SILL. DO NOT PLACE SHIMS BENEATH MULL OR MULL CAP.

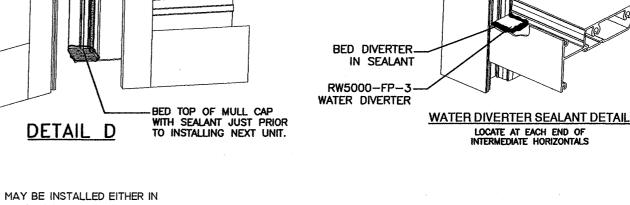
5) RUN BEAD OF SEALANT CONTINUOUS FOR FULL HEIGHT OF MULLION AND BED MULL CAP WITH SEALANT AT HEAD AND SILL AS SHOWN IN DETAIL D.

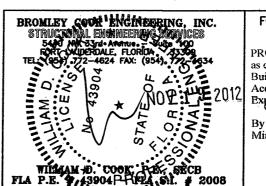
DETAIL B

6) INSTALL SECOND UNIT BY BRINGING INTO POSITION FROM INSIDE OF BUILDING, TILT HEAD OF UNIT BENEATH MULL CAP, ROTATE SILL OF UNIT OVER LOWER MULL CAP, THEN INTERLOCK BACK LEGS OF MULLION (SEE DETAIL C), PLACE APPROPRIATE SHIMS BENEATH SILL MEMBER TO ALLOW FOR BETTER ALIGNMENT, AND ROTATE UNIT INTO PLACE. PLUMB AND ANCHOR.

7) REPEAT STEP 6 FOR ALL ADDITIONAL UNITS. MINIMUM 1/4" CAULK JOINT AT JAMB IS REQUIRED FOR INSTALLATION OF FINAL UNIT.

8) SYSTEM MAY BE INSTALLED EITHER IN UN-GLAZED OR PREGLAZED FRAMES. WHEN INSTALLING UNITS AS UN-GLAZED FRAMES FOLLOW INSTRUCTIONS 4 THRU 8 AND THEN INSTALL GLASS, NEXT PLACE AN I/8" SHIM AT MID-HEIGHT OF MULL AND CLAMP BACK OF MULL AT THE SHIM BEFORE RUNNING WEDGE TO HELP INSURE PROPER ALIGNMENT OF MULLS AT FACE OF SYSTEM. WHEN PREGLAZING FRAMES. MAKE SURE THAT UNITS ARE SQUARE AND THAT DAY LIGHT OPENINGS ARE HELD TO PROPER DIMENSIONS BEFORE RUNNING STRUCTURAL SILICONE. (REFERENCE SILICONE MANUFACTURER FOR PROPER CLEANING AND USE OF SILICONE.)





FOR MIAMI-DADE CO. B.C.C.O.

PRODUCT REVISED as complying with the Florida **Building Code** Acceptance No 12-1126.07 Expiration Date Feb. 27.2018 Miami/Dade Product Control

6 OF

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PRODUCT APPROVAL DRAWINGS RW-5000 RIBBON WINDOW SYSTEM SMALL MISSILE IMPACT

RW. PROJECT NO GRG 9/17/12

NOTED RW-5000SM

